

Bedbug FAQ's

Department of Health and Senior Services



[Bedbugs are biting again \(University of Missouri – 1:56\)](#)

What are bed bugs?

- Small, wingless, reddish-brown bugs that eat human blood
- Oval shaped, ranging in size from a poppy seed to an apple seed
- Tend to congregate, secretive, and usually nocturnal
- Travel from place to place in luggage, clothes, boxes, and used furniture
- Infestations can move between apartments/motel rooms through small cracks

Why should I be concerned about bed bugs?

There is no evidence of disease transmission (i.e. HIV, hepatitis) per CDC, but infestations can lead to other health issues:

- Significant psychological distress, causing anxiety and loss of sleep
- Overexposure to do-it-yourself pesticides or other remedies used to control bed bugs
- Anemia in children and the elderly has been reported following severe infestations
- Implicated in initiation or aggravation of asthmatic reaction (additional research needed)
- Economic hardships because bed bugs typically are not controlled with do-it-yourself measures

How do people get bed bug bites?

- Bed bugs are most active when we sleep.
- They crawl onto exposed skin, inject a mild anesthetic and suck up a small amount of blood.
- Most people never feel the actual bite.
- Through long association with human beings, they are adept at establishing themselves in and around the bedroom.
- Infestations of bed bugs can spread into other rooms of the household and even into adjacent apartments and motel rooms.

What will a bed bug bite do to me?

- Most people's reaction to bed bug bites can take a few minutes but for some people, reactions can take as many as two weeks to appear
- Different people's reactions to bed bug bites range from no reaction to very severe reactions
- Area may become red and itchy due to an allergic reaction to bed bug saliva
- Allergic reactions can lead to scratching and secondary infections

How do I know if my bites are from bed bugs?

- It is difficult, if not impossible, to distinguish bed bug bites from those of other biting pests
 - Bed bug bites can resemble the bites of mosquitoes; fleas; spiders; ticks; head, body, and pubic lice; bird and rodent mites; and scabies mites
 - Bed bug bites can develop into small bumps or large itchy welts
 - Bites from a large number of bed bugs can present as a widespread, red rash

- Severe reaction to bites may be accompanied by a systemic reaction of fever and/or malaise
- If you or someone you know has bites consider the following:
 - Bed bugs commonly feed on the arms, shoulders and legs, i.e., areas not covered while sleeping
 - The first sign of bed bugs is usually a group of bites

Do I need to visit my doctor if I suspect I have bed bug bites?

- If you have a medical emergency, contacting DHSS is not the proper way to get immediate help. Instead, please contact your health care provider or go to the nearest emergency room.
- Your medical care provider may not be able to determine from the bite reaction alone if the cause is actually bed bugs.
- Your care provider may consider the possibility that you have bites from other insects, an antibiotic reaction, a scabies infection, a food allergy, hives, a Staphylococcus infection, chicken pox, or any number of other conditions.
- There is no specific treatment for bed bugs, but your care provider may recommend treatment with antihistamines and corticosteroids for itching and swelling.

What do I look for when I suspect a bed bug infestation?

- You will be looking for any of the following: bed bugs; eggs; blood spots, fecal stains; empty skins left after molting; and a sweet or musty odor
- Bed bugs can be easily confused with other small household insects, including carpet beetles, spider beetles and newly hatched cockroaches (nymphs).
- It can be very difficult for a non-professional to find bed bugs
 - Ask for help!
 - For seniors, enlist a young person with good vision
 - If mobility is a problem, ask family members and friends
 - Call the building manager, landlord, or your social service provider
 - Some certified pest controllers offer free inspections
 - Assemble your search tools
 - Use a strong flashlight, magnifying glass, and a probing tool like a pointed nail file or chop stick for examining seam edges.
 - Sticky tape or tissues to capture specimens
 - Have on hand plastic zip-top bag for collecting specimens
 - Until your bugs are identified, store in a plastic bag in the freezer
 - In a low to moderate infestation, the bed bugs will be concentrated close to sleeping areas.
 - Check for bed bugs hiding in the mattress, box spring, and bed frame. Be sure to look under the mattress and along the seams (edges).
 - Search other furniture near the bed, like end tables.
 - Items away from the sleeping area will be at a low risk of infestation
 - Move slowly and avoid disturbing hiding bugs, so they don't scatter.
- Info can be found here: <http://www.epa.gov/pesticides/bedbugs/index.html#signs>

Can I manage a bed bug infestation on my own?

The DHSS recommends that homeowners hire a pest control professional licensed by the MO Department of Agriculture (MDA) to evaluate what type of pest is present, and to exterminate them. The MDA maintains a list of Missouri licensed pesticide applicators. The list can be searched here: <http://www.kellysolutions.com/MO/Applicators/index.asp>.

If you choose to use pesticides in your home to treat for bedbugs, you must read, understand and follow the label instructions carefully. Several classes of chemicals are registered for use against bed bugs. For assistance in choosing an appropriate pesticide, contact the local University of Missouri Cooperative Extension office:

<http://extension.missouri.edu/directory/Places.aspx>

Shouldn't garden pesticides be safe to use in my house – don't we put them on our food? Also, I already have several bug sprays like wasp killer and ant bait – can I use these to keep from being bitten by bed bugs?

CAUTION: Lawn and garden pesticides, wasp killer spray, and ant bait were not designed to kill bed bugs. Always read and follow label directions for any pesticide product, and make sure the pesticide is intended for treating bed bugs. The EPA has a [bed bug product search tool](#) you can use to identify pesticides registered for use against bed bugs in various locations.

The worry and frustration that bed bug victims feel is very real and may tempt some people to use desperate measures. NEVER substitute different pesticides that are not registered for bed bugs – you run the risk of you, your family and friends, and your pets being exposed to the wrong kind of pesticide. Always read and understand the label of any pesticide you use. **Never spray pesticide on:**

- Skin
- Bedding
- Mattress
- Pillows
- Clothing
- Children's toys

What if my treatment isn't controlling the problem?

Bed bug control is most effective when an Integrated Pest Management approach is used with both chemical and non-chemical measures. Assistance of a pest control professional may be needed.

What is so difficult about the control of bed bugs?

Because of pesticide resistance and their hardy, secretive nature, it is very difficult for an untrained consumer to manage a bed bug infestation by themselves. Bed bugs are sometimes controlled by non-chemical means alone; however, this approach can be very difficult, potentially less effective, and often more resource intensive. Shortcuts or omitted steps increase the likelihood of an infestation continuing. The most effective bed bug control strategy will start with a careful, thorough inspection by a pest control professional of all known and suspected spots where the bugs may be harboring. If bed bugs are discovered, the pest control professional will develop a treatment and control strategy with the customer depending on the extent of the infestation. Achieving elimination of a bed bug infestation requires a multifaceted approach, which is called Integrated Pest Management (IPM).

What are the elements of an Integrated Pest Management (IPM) program for controlling bed bugs?

A comprehensive IPM program to control bed bugs may include a number of methods including:

- Proper identification of the pest
- Using monitoring devices
- Removing clutter where bed bugs can hide
- Applying heat treatment
- Vacuuming
- Sealing cracks and crevices to remove hiding places
- Using non-chemical pesticides (such as diatomaceous earth)
- Judicious use of effective chemical pesticides
- Follow up inspections/re-treatments

Why doesn't the Environmental Protection Agency (EPA) allow certified pesticide applicators to use DDT, which was successful for treating bed bugs in the 1940's and 1950's?

The banning of DDT has been popularly cited as a factor that allowed the current bed bug resurgence. However, DDT resistance in bed bugs was widely recognized decades ago, and even if it were available now, it is unlikely it would be effective. Due to the widespread use of this pesticide in the 1950s and 1960s, resistance to DDT became more common in bed bugs.

Resistance develops when mutations in the genetic code allow a few individuals to survive pesticide treatment. Though DDT is rarely used today, mutations in the genetic code that favor resistance to this pesticide are still present in modern bed bug populations.

Traditional approaches to bed bug control that rely on pesticides are no longer effective. Pesticides are only one tool in a large toolbox of other control measures. No single tool or activity, used alone, will eliminate bed bugs, including the use of DDT or other pesticides. By approaching bed bug control on multiple fronts, we decrease our dependence on pesticides while at the same time help preserve the effectiveness of chemical pesticides into the future by limiting bed bugs' ability to evolve additional resistance.

What about reports on the Internet of successful home remedies?

As bed bug victims become more desperate, serious injury may result from such home remedies or misuse of pesticides. DO NOT substitute different pesticides not registered for bed bugs, such as those for garden or agriculture use. Pest control firms have reported seeing many ineffective and potentially dangerous measures used by do-it-yourselfers, including ammonia, bleach, fire, smoke, kerosene, essential oils, wasp spray, and bug bombs, as well as professional-use concentrated pesticides bought on the Internet.

How can I prevent a (or another) bedbug infestation?

A few simple precautions can help prevent bed bug infestation in your home:

- Check secondhand furniture, beds, and couches for any signs of bed bug infestation, as described above before bringing them home.
- Use a protective cover that encases mattresses and box springs, which eliminates many hiding spots. The light color of the encasement makes bed bugs easier to see. Be sure to purchase a high quality encasement that will resist tearing and check the encasements regularly for holes.
- Reduce clutter in your home to reduce hiding places for bed bugs.

- When traveling:
 - In hotel rooms, use luggage racks to hold your luggage when packing or unpacking rather than setting your luggage on the bed or floor.
 - Check the mattress and headboard before sleeping.
 - Upon returning home, unpack directly into a washing machine and inspect your luggage carefully.

Should I preemptively treat my home for bedbugs using pesticides?

Use of pesticides should only be done as part of a comprehensive approach to treat for bedbugs. "Preventive" or preemptive use of pesticides in the home needlessly exposes you and your family to pesticide residues and can contribute to pesticide resistance. Chemical methods should not be the first or only approach and should not be used without first properly identifying the insects are bed bugs. Identification may best be done by a pest control professional.

I am sure my bed bugs were here before I moved into my apartment. Is there a state health code that makes my landlord responsible for the necessary control?

- DHSS does not have legal authority that would enable the agency to correct this problem.
- If you have not done so already, you can check to see if the county or city in which you live has landlord obligation ordinances that they can enforce.
- If no local ordinance is available, you can get in touch with the Missouri Attorney General's Office under the Landlord/Tenant Law. The Attorney General's Consumer Protection Hotline phone number is: 800-392-8222.
- In addition, the Missouri Attorney General's Office publishes a consumer guide on the Landlord/Tenant Law. This guide can be accessed at:
<http://ago.mo.gov/publications/landlordtenant.pdf>.

What if I found bedbugs in my motel room?

- Contact the DHSS Bureau of Environmental Health Services at 573-751-6095. Or you can contact the local public health agency (LPHA) directly. Either agency will need to know the name of the establishment, the address, the dates of stay and the room number(s).
- An investigation will be performed by the LPHA of the rooms identified and the adjacent rooms. If evidence of bedbugs is found, the room will be taken out of service and a licensed pest control operator will be contacted to evaluate and take appropriate action.
- Inspect your luggage and its contents before bringing them into your home.
 - Keep your travel clothes separate from other laundry.
 - Wash them in warm water right away and dry in the dryer.
 - Vacuum your luggage to get rid of any hitchhiking bed bugs.

What if I suspect that pesticides applied in my home are making me (or my family) sick?

- ACT NOW if you have question about a possible pesticide poisoning or any other poison related questions
 - Call the Missouri Poison Center Hotline at 1-800-222-1222 or 1-314-772-5200 (St. Louis)
 - Have the pesticide label available when calling the Missouri Poison Center
- If you suspect that damage or harm has occurred from a pesticide application you can contact the MDA Bureau of Pesticide Control at (573) 751-5504 in Jefferson City to file a

complaint about the possible misuse of a pesticide by any applicator. An MDA investigator is notified to make an investigation of the incident as soon as possible.

For non-emergency information on pesticides

- Call the National Pesticide Information Center at 1-800-858-7378. Help is available between 6:30 a.m. and 4:30 p.m. PT, 7 days a week; or visit www.npic.orst.edu.
- If you have health questions about adverse health effects of pesticide exposures, you can call DHSS-Bureau of Environmental Epidemiology at 573-751-6102.

Occupational exposures

There are many reliable resources available on the Internet suitable for the general public, but for workers who are involved in housekeeping, facilities maintenance, medical and social work, more detailed guidance is necessary.

The New York State Integrated Pest Management Program has issued a very comprehensive guidance document titled “Guidelines for Prevention and Management of Bed Bugs in Shelters and Group Living Facilities” that is available for download by chapter on the Internet. Part Three of the guidance has a section on “How to avoid picking up bed bugs at work” (page 28) that should address most workers’ concerns. Part Three also contains a section on how social workers can provide emotional and educational support to a person or family whose living space is infested with bed bugs (page 31). You can download Part Three or the entire guidance from the Cornell University Cooperative Extension website at:
http://www.nysipm.cornell.edu/publications/bb_guidelines/.

Compassionate screening of potential homeless shelter or emergency housing clients

On page 27 of the Cornell University Cooperative Extension guidance above, there is a discussion that addresses screening of clients of homeless shelters and other emergency housing who may bring along bed bugs from previous living arrangements.

Reliable Resources for Consumers

- Top Ten Bed Bug Tips from EPA: <http://www.epa.gov/pesticides/factsheets/bed-bugs-faq-fs.html>
- http://www.ipmctoc.umn.edu/Control_of_bedbugs_in_residences_US_Commercial.pdf